DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SAWYER POND, LITTLE Lake Area (ha): 4.45 Maximum depth (m): Town: County: 8.8 LIVERMORE Mean depth (m): 3.1 Grafton River Basin: Saco Volume (m³): 138000 Normal Relative depth:

'51" W Shore configuration: 1.07

2070 Areal water load (m/yr): 5.59

800 Flushing rate (yr⁻¹): 1.80

1: 32.8 P retention coeff:: 0.64

Take type: natural Latitude: 44°03'07" N Longitude: 71°22'51" W Elevation (ft): Shore length (m): Watershed area (ha): 32.8 % watershed ponded: 0.0

BIOLOGICAL:	12 January 1994	16 August 1993
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	MERISMOPEDIA 45%
#2		DINOBRYON 30%
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		685
CHLOROPHYLL-A (µg/L)		1.61
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 71%	KERATELLA 44%
#2	CALANOID COPEPOD 19%	CALANOID COPEPOD 33%
#3		
ROTIFERS/LITER	23	17
MICROCRUSTACEA/LITER	6	22
ZOOPLANKTON ABUNDANCE (#/L)	31	39
VASCULAR PLANT ABUNDANCE		Scat/Common
SECCHI DISK TRANSPARENCY (m)		8.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	13.1	9.3
BACTERIA (E. coli, #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:		Lake: SAWYER POND, LITTLE Town: LIVERMORE			
A STATE OF THE STA	12 January 1994		16 August 1993		
DEPTH (m)	2.0	5.0	2.0		6.0
pH (units)	6.1	5.6	6.5		6.4
A.N.C. (Alkalinity)	2.3	2.5	1.4		1.7
NITRATE NITROGEN	0.17	0.19	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.20	0.20	0.21		0.12
TOTAL PHOSPHORUS	<0.001	<0.001	0.004		0.003
CONDUCTIVITY (µmhos/cm)	21.7	22.3	19.4		19.7
APPARENT COLOR (cpu)			< 5		6
MAGNESIUM			0.13		
CALCIUM			1.6		
SODIUM			1.0		
POTASSIUM			0.65		
CHLORIDE	< 3	< 3	< 3		< 3
SULFATE	4	4	3		3
TN : TP			53		40
CALCITE SATURATION INDEX			4.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

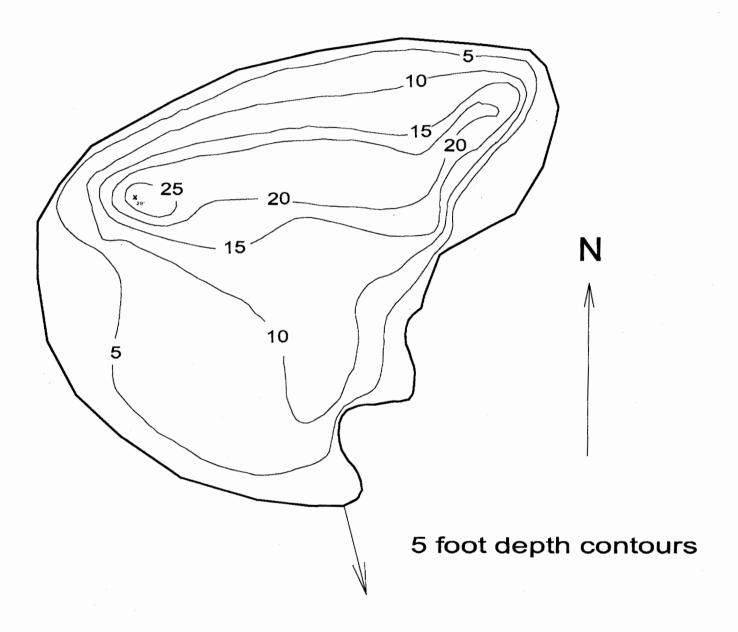
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	0	2	0	2	Oligo.

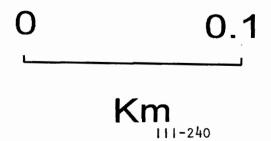
COMMENTS:

- 1. This is a remote pond, located in the White Mountain National Forest, that was surveyed jointly with the N.H. Fish & Game Department. It has been sampled annually by helicopter for acid rain parameters since 1983 in the Department's "Acid Rain-Remote Ponds" program.
- 2. This is a crystal clear oligotrophic pond with very low phosphorus levels and visibility to the bottom (26 1/2 feet).
- 3. Numerous submerged logs were present around the pond.
- 4. Merismopedia (85%) was a strongly dominant wholewater phytoplankton genus.

Little Sawyer Pond

Livermore





FIELD DATA SHEET

LAKE: SAWYER POND, LITTLE TOWN: LIVERMORE
DATE: 08/16/93 WEATHER: PARTLY CLOUDY; LT. BREEZE; 84F

21121 00, 20, 30		WEITHER TIMEL CHOODI, HI BREEZ, OIL			
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION		
0.1	22.5	8.4	95 %		
1.0	21.9	8.4	94 %		
2.0	21.5	8.3	93 %		
3.0	21.3	8.4	94 %		
4.0	21.3	8.4	94 %		
5.0	21.0	8.7	96 %		
6.0	20.0	8.8	95 %		
7.0	18.2	9.3	98 %		

SECCHI DISK (m): 8.1 VOB COMMENTS:

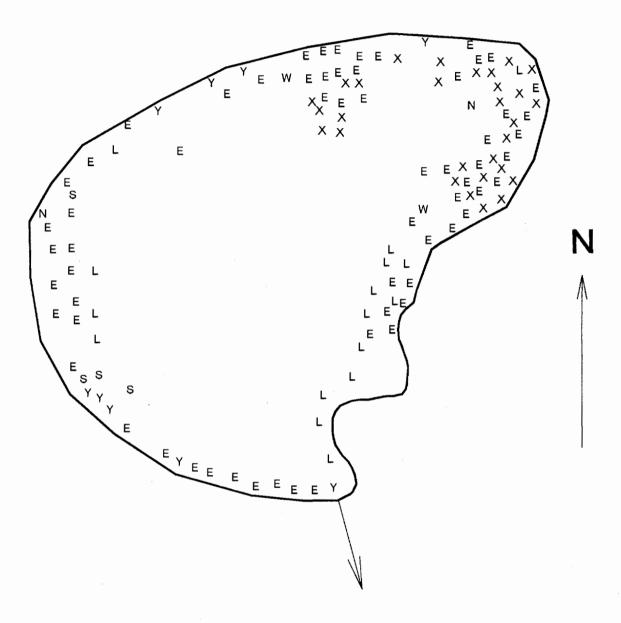
BOTTOM DEPTH (m): 8.1

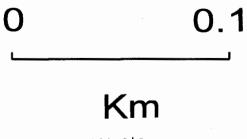
TIME: 1230

*Dissolved oxygen values are in mg/L

Little Sawyer Pond

Livermore





111-242

AQUATIC PLANT SURVEY

LAK	E: SAWYER POND, LITTLE	TOWN: LIVERMORE	DATE: 08/16/93	
Key	PLANT	NAME	ADUNDANCE	
кеу	GENERIC	COMMON	ABUNDANCE	
N	Nymphaea	White water lily	Sparse	
E	Eriocaulon septangulare	Pipewort	Common	
ន	Sparganium	Bur reed	Sparse	
L	Lobelia dortmanna	Water lobelia	Scattered	
Y	Nuphar	Yellow water lily	Scattered	
W	Potamogeton	Pondweed	Sparse	
X		Sterile thread-like leaf	Scattered	
F	Nymphoides cordatum	Floating heart	Sparse	
	Myrica gale	Sweet gale	Common	
	Chamaedaphne calyculata	Leatherleaf	Common	
		L	l	

OVERALL ABUNDANCE: Scat/Common

GENERAL OBSERVATIONS:

- 1. Sweet gale and leatherleaf were common around the entire shoreline but are not depicted on the map because they were not in the water.
- 2. Pipewort was common around the shoreline in the water, but because of its sparse growth habit, the overall plant rating was only "scattered/common".